CLAIMS

1. Apparatus for interconnecting media servers to subscriber terminals in a system having a headend and a distribution network with a plurality of subscriber terminals connected to the network, said apparatus comprising:

a plurality of media servers at the headend, each media server providing
5   one or more media assets for distribution to the subscriber terminals;

a plurality of modulators connecting a requested media asset from a media server to a requesting subscriber terminal; and

a connection manager, responsive to a media asset request from the requesting subscriber terminal, selecting a source media server from the
10   plurality of media servers to provide the requested media asset and selecting a modulator from the plurality of modulators to send the requested media asset from the source media server to the requesting subscriber terminal.

2. The apparatus in claim 1 wherein:

said plurality of modulators acts as switch points in a two stage switch between the source media server and the requesting subscriber terminal;

a selected modulator operating at its channel frequency in said plurality
5   of modulators being the switch point in the two stage switch;

said source media server under the control of the connection manager acting as a first stage of the switch by selecting the selected modulator to receive the requested media asset from the source media server; and

said requesting subscriber terminal acting as a second stage of the
10   switch by tuning to the channel frequency of the selected modulator.

3. The apparatus of claim 2 wherein:

said media server sends the requested media asset as digital data
packets;

said connection manager allocates a program identifier to the requested
5   media asset and notifies the subscriber terminal of the program identifier;

said media server inserts the program identifier in each digital data
packet of the requested media asset;

said requesting subscriber terminal, responsive to the program identifier
in the digital data packets, extracting the digital data packets of the requested
10   media asset from a data stream received from the selected modulator.

4. The apparatus of claim 1 wherein said plurality of modulators
comprises:

a rectangular array of modulators;

each modulator in a row of modulators in the rectangular array receives
5   a media asset from a media server linked to the modulator, and each modulator
in a row modulates at the same frequency a media asset from the media server;

each modulator in a column of modulators in the rectangular array
modulates at a different frequency a media asset from a media server; and

a combiner combining all of the modulated media assets from a column
10   of modulators for distribution to a pre-defined set of subscriber terminals.

5. The apparatus of claim 4 wherein the pre-defined set of subscriber
terminals is a node group of subscriber terminals.

6. The apparatus of claim 4 wherein each modulator in a row is linked in parallel with other modulators in the row to the media server for the row.

7. The apparatus of claim 4 wherein:

each modulator in a row is linked in series with other modulators in the row to the media server for the row;

said media server sends the requested media asset as digital data

5   packets;

said connection manager allocates a program identifier to the requested media asset and notifies a selected modulator in the row of the program identifier; and

said selected modulator, responsive to the program identifier, for

10   modulating the digital data packet of the requested media asset for transmission to the requesting subscriber terminal.

8. In a method for managing the connection from a media server to a subscriber terminal to provide a media asset from the media server to a requesting subscriber terminal, said method comprising the computer implemented steps of:

5   analyzing a workload at each of a plurality of media servers and selecting a media server for supplying the media asset and selecting a transmission path for passing the media asset from a selected media server to the requesting subscriber terminal;

allocating an media asset identifier to the media asset;

10   instructing the selected media server to play the media asset as a media asset stream tagged with the media asset identifier;

sending a reply message to the requesting subscriber terminal, said reply message containing the media asset identifier allocated to the media asset and the transmission path whereby the subscriber terminal has the information

15   required to receive the media asset.

9. The method of claim 8 further comprising the steps of:

acquiring at the requesting subscriber terminal the transmission path; and

extracting at the requesting subscriber terminal the media asset stream

5   tagged with the media asset identifier received over the transmission path whereby the requested media asset is delivered to the requesting subscriber terminal.

10 The method of claim 8 wherein said analyzing step further comprises the steps of:

selecting a media server to provide the media asset; and

selecting a modulator to modulate at a predetermined frequency the media asset stream and thereby select the transmission path to the requesting subscriber terminal.

11. The method of claim 10 wherein the step of selecting a modulator comprises the step of:

providing the media asset stream on an output port of the media server, said output port being connected to predetermined modulator.

12. The method of claim 10 wherein the step of selecting a modulator comprises the step of:

providing the media asset stream to a plurality of modulators;

sending to the selected modulator the media asset identifier allocated to the media asset whereby the selected modulator, when receiving the media asset stream, will modulate only the media asset with the media asset identifier.

13. The method of claim 10 further comprising the steps of

tuning the requesting subscriber terminal to the predetermined frequency of the selected modulator; and

extracting at the requesting subscriber terminal the media asset stream tagged with the media asset identifier received on the frequency of the selected modulator whereby the requested media asset is delivered to the requesting subscriber terminal.

14. Apparatus for interconnecting media servers to subscriber terminals in a system having a headend and a distribution network, a plurality of media servers connected at the headend, and a plurality of subscriber terminals connected to the network, a requesting subscriber terminal requesting a media asset from the media servers, said apparatus comprising:

each media server providing one or more media assets for distribution to the subscriber terminals;

an array of modulators modulating requested media assets provided by the media servers;

a plurality of sets of modulators in the array, a media server linked to each set of modulators, each modulator in a set modulates at the same frequency a media asset from the media server linked to the set, and each set of modulators modulates at a different frequency from other sets of modulators in the array;

a connection manager, responsive to a media asset request from the requesting subscriber terminal, selecting a media server as a source media server to provide the requested media asset and selecting a modulator from the set of modulators linked to the source media server to modulate the requested media asset for transmission to the requesting subscriber terminal through a combiner for a group of subscriber terminals containing the requesting subscriber terminal; and

said combiner combining all of the modulated media assets from each of the sets of modulators for distribution to a pre-defined group of subscriber terminals.

15. The apparatus of claim 14 wherein each modulator in a set is linked in parallel with other modulators in the set to the media server for the set.

16. The apparatus of claim 14 wherein:

each modulator in a set is linked in series with other modulators in the set to the media server for the set;

said source media server sends the requested media asset as digital data

5   packets;

said connection manager tags a program number to the requested media asset and notifies the selected modulator in the set of the program number; and

said selected modulator, responsive to the program number, for modulating the digital data packet of the requested media asset for

10 transmission to the requesting subscriber terminal.

17.   The apparatus of claim 14 comprises in addition:

said requesting subscriber terminal tuning to the frequency of the set of modulators linked to the source media server.

18.   The apparatus of claim 17 comprises in addition:

said connection manager tags a program number to the requested media asset; and

said requesting subscriber terminal displaying a media asset tagged with the program number received on the frequency of the set of modulators linked to the source media server whereby the requested media asset is delivered to the requesting subscriber terminal.